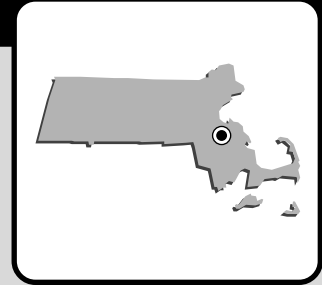


## SOUTH WEYMOUTH NAVAL AIR STATION WEYMOUTH, MASSACHUSETTS

**Engineering Field Division/Activity:** NORTHDIV  
**Major Claimant:** COMNAVRESFOR  
**Size:** 1,442 Acres  
**Funding to Date:** \$3,533,000  
**Estimated Funding to Complete:** \$47,418,000



**Base Mission:** Trains all assigned units for their mobilization assignment; provides administrative coordination and logistics support for Reserve Units; provides logistic support for the Marine Air Reserve Training Detachment South Weymouth

**Contaminants:** POLs, solvents, acids, paint, metals, photographic chemicals, industrial wastes

<b>Number of Sites:</b>		<b>Relative Risk Ranking of Sites:</b>		
<b>CERCLA:</b>	9	<b>High:</b>	2	<b>Not Evaluated:</b> 0
<b>RCRA Corrective Action:</b>	0	<b>Medium:</b>	7	<b>Response Complete:</b> 0
<b>RCRA UST:</b>	1	<b>Low:</b>	1	<b>Total Sites:</b> 10
<b>Total Sites:</b>	10			



### EXECUTIVE SUMMARY

South Weymouth Naval Air Station (NAS) is located in eastern Massachusetts, 15 miles south of downtown Boston and six miles from the Atlantic coast. South Weymouth NAS covers 1,442 acres and lies in both Plymouth and Norfolk counties. NAS trains units for mobilization and provides administrative coordination and logistics support for Reserve Units. Typical air station operations contributed petroleum hydrocarbons, solvents, acids, paints, metals, photographic chemicals, and industrial wastes to a landfill site, a tank storage area, a jet fuel tank farm, a disposal area, and a fire fighting training area. These contaminants affect ground-water, surface water, sediments, and soil. Current operations include pollution prevention technologies to prevent further contamination.

NAS is surrounded by the towns of Abington, Hingham, Rockland, and Weymouth. Large tracts of wetlands occur throughout these towns. The area is a mixture of urban development and forest. Just west of NAS, across Route 18, is the Weymouth Great Pond, a wetland that is the source of municipal water for NAS and much of the area around NAS. There are few wells in this area. There are three major aquifers in the vicinity of NAS: bedrock, glacial till, and stratified drift. Surface terrain is characterized by bedrock outcrops, swampy wetlands, and small stream channels.

Three Information Repositories were established in public libraries in Weymouth, Rockland, and Abington, Massachusetts in 1992. Copies of the documents in the Administrative Record can be found in the Information Repositories. A Technical Review Committee (TRC), established in FY92, was converted into a Restoration Advisory Board (RAB) in FY94. The first RAB meeting was held in FY95.

At the end of FY95, ten sites were in the Study Phase. CERCLA investigations and Record of Decisions (RODs) have been delayed due to minimal funding in FY93 and FY94.

Three Underground Storage Tanks (USTs) sites have been identified at NAS South Weymouth, Site 6 (Fuel Tank Farm), UST 1 (Building 81 Tank), and UST 2 (Squantum Gardens Tanks). Site 6 (Fuel Tank Farm) has jet fuel is stored in five underground tanks. Site 6 is being addressed under CERCLA.

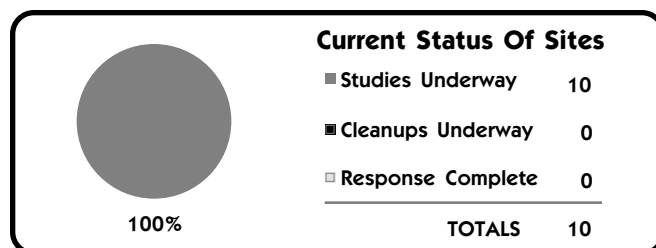
UST 1 and UST 2 are being addressed under RCRA. In FY91, the waste oil tank from UST 1 was removed. Soil was removed from UST 1 (Building 81 Tank) in FY95. At UST 2 (Squantum Gardens Tanks), two removal actions are underway. One is to remove tanks, and the other is to remove contaminated soil.

At Site 7 (Old Sewage Treatment Plant), two removal actions are complete. The first removed several compressed chlorine gas cylinders and pesticide containers, and the second removed contaminated soils and liquids.

Remedial Actions (RA) are planned for Site 1 (West Gate Landfill), Site 2 (Rubble Disposal Area), Site 3 (Small Landfill) awaiting results of the RI/FS. Combining the RA's for the landfills will reduce time and costs for cleanup.

NAS South Weymouth was recommended for closure by the 1995 Base Realignment and Closure (BRAC) Commission. Operations are to be transferred to nearby Brunswick Naval Air Station, Maine. Aircraft, personnel, and equipment will be relocated to meet the goal of maintaining only the infrastructure necessary to support future force levels while not impeding operational flexibility for the deployment of that force. The closure of South Weymouth NAS will have a positive effect on local air quality because a source of Volatile Organic Compounds (VOCs) and Nitrous-oxide (NOX) emissions will be removed from an area that is in severe non-attainment for ozone.

The BRAC Cleanup Team will be established in FY96, and the BRAC Cleanup Plan is expected to be completed by November 1996. The Environmental Baseline Survey is due in July of 1996.



## SOUTH WEYMOUTH NAS RELEVANT ISSUES

### ENVIRONMENTAL RISK



**HYDROGEOLOGY** - Large tracts of wetlands occur throughout the towns surrounding South Weymouth NAS. Just west of NAS across Route 18 is a large wetland containing the Weymouth Great Pond, a source of municipal water for much of the area, including NAS. The town of Weymouth provides water and sewer service for NAS. Bedrock under the station consists of fractured metamorphic and igneous rocks, which are overlain by a variety of unconsolidated glacial deposits of varying thickness. In the vicinity of NAS, water is obtained from three major aquifers: bedrock, glacial till, and stratified drift aquifers. The stratified drift aquifer, the principal aquifer in the area, also recharges many of the region's surface water sources. This aquifer is situated along the west side of South Weymouth NAS.

Surface water resources near NAS include Weymouth Great Pond, Whitman's Pond, Whortleberry Pond, Bouve Pond, and Bear Swamp. All of these water bodies can be a source of municipal water. The surface water and groundwater are interrelated. Lakes, pond, and stream flow are the main recharging elements of the aquifers. In some areas, an aquifer may recharge a stream or river.

NAS and its surrounding area is flat with a rolling surface. Elevation ranges from 12 to 180 feet above sea level. Most of the land slopes on NAS are grades of under five percent. The surface terrain is characterized by bedrock outcrops, swampy wetlands and small stream channels. The area surrounding NAS contains a mixture of both urban development and forest area. NAS topography was altered as a result of extensive filling in of low wetland areas and channeling of surface water during construction of the air fields, runways, and related facilities. Surface and storm drainage water from NAS enters a ditch system that flows into French Stream south of NAS in the town of Rockland. Depending on location, water will flow into one of two drainage basins: the South Coastal Drainage Basin to the south; and the Boston Harbor Drainage Basin to the north.



**NATURAL RESOURCES** - Large tracts of wetlands occur throughout the area around the NAS. There are no known federal or state endangered species in the area. An Environmental Baseline Survey is underway and will list endangered species, if any.



**RISK** - At the end of FY95, two sites had a high relative risk ranking, seven had a medium ranking, and one had a low ranking. Site 2, a disposal area ranked high due to potential contamination of surface water. For the purposes of extending Runway 26, culverts were placed in the middle of the Old Swamp River between 1959 and 1962, forming a land bridge. The runway approach lighting is located on top of the fill. Adjacent to the fill is the disposal area which received building debris and possibly transformers containing the chemical additive PCB from on-site sources. It is unknown what material was used for the fill. Underground Storage Tank (UST) 2, a fuel oil tank, ranked high due to soil contamination. The Agency for Toxic Substances and Disease Registry has done a Public Health Assessment as required for NPL installations. It has been determined that NAS is a low priority installation.

### REGULATORY ISSUES



**NATIONAL PRIORITIES LIST** - NAS South Weymouth was proposed for the National Priorities List (NPL) in June 1993 and was placed on the NPL in May 1994 with a Hazard Ranking System (HRS) score of 50.00 due to groundwater contamination.



**LEGAL AGREEMENTS** - Negotiations for a Federal Facilities Agreement (FFA) are planned to begin the second half of FY96.



**PARTNERING** - Informal partnering with regulatory agencies occurs at bi-monthly meetings.

### COMMUNITY INVOLVEMENT



**RESTORATION ADVISORY BOARD** - A Technical Review Committee (TRC) was established in 1992 to increase communication between the installation and the regulatory agencies and facilitate decision-making regarding the cleanup process. In FY94, the TRC was converted into a Restoration Advisory Board (RAB). The first RAB meeting was held in FY95. The RAB has twenty members who meet bi-monthly.



**COMMUNITY RELATIONS PLAN** - A Community Relations Plan was developed in 1993. An updated plan is scheduled for completion in FY96.



**INFORMATION REPOSITORY** - The Administrative Record, which is the official file of related documents, and three Information Repositories were established 1992. They are located at the following public libraries:

**Tufts Library**  
46 Broad Street  
Weymouth, MA 02188  
617-337-1402

**Rockland Memorial Library**  
366 Union Street  
Rockland, MA 02370  
617-878-1236

**Wales Public Library**  
33 Randolph Street  
Abington, MA 02351  
617-878-1239

### BASE REALIGNMENT AND CLOSURE



**BRAC** - NAS South Weymouth was recommended for closure by the 1995 Base Realignment and Closure (BRAC) Commission. Operations are to be transferred to nearby Brunswick Naval Air Station, Maine. Aircraft, personnel, and equipment will be relocated to meet the goal of maintaining only the infrastructure necessary to support future force levels while not impeding operational flexibility for the deployment of that force. The closure of South Weymouth NAS will have a positive effect on local air quality because a source of Volatile Organic Compound (VOC) and Nitrous-oxide (NOX) emissions will be removed from an area that is in severe non-attainment for ozone.



**BRAC CLEANUP TEAM** - The BRAC Cleanup Team (BCT) will be established in FY96.



**DOCUMENTS** - The BRAC Cleanup Plan (BCP) is due July 1996. A Phase I Environmental Baseline Survey (EBS) is underway



**LEASE/TRANSFER** - There are 1,442 acres available for disposal. Currently, no acres are leased and no acres are environmentally available for transfer.



**FAST TRACK INITIATIVES** - There is a plan to combine Remedial Actions for three landfills to save time and costs for cleanup.

## SOUTH WEYMOUTH NAS HISTORICAL PROGRESS

### FY88

**Sites 1-5** - A Preliminary Assessment (PA) was completed in March 1988. All five sites were recommended for further study under a Site Inspection (SI).

### FY89

**Sites 6, 7, 8** - Three new sites were identified. Petroleum hydrocarbons and solvents leaked at Site 6 (Fuel Tank Farm); industrial wastes were discharged to Site 7 (Old Sewage Treatment Plant); and petroleum hydrocarbons and solvent leaked at Site 8 (Abandoned Bladder Tank Storage Area ).

**Sites 1-8** - An SI was begun.

### FY91

**Sites 1-8** - The SI Report found that none of the sites presented an imminent hazard to human health or the environment. The SI Report found that six of the eight sites (Sites 1-4, 6 and 8) investigated contained levels of contaminants sufficient to conduct an RI/FS at those sites. For Sites 5 and 7, the SI Report recommended limited media sampling as a Supplemental SI (SSI)

with No Further Action (NFA) expected to be required. The SSI will be conducted concurrently with the RI for the rest of the sites. If required, after the results of the SSI, Sites 5 and 7 will enter the RI/FS phase.

**UST 1** - The waste oil tank at building 81 was removed.

### FY92

**Site 7** - A removal action was conducted to remove several compressed chlorine gas cylinders and pesticide containers which were discovered during demolition of a secondary containment area at the Old Sewage Treatment Plant.

### FY93

**Site 7** - A second removal action was conducted to remove contaminated soils and liquids.

**Sites 1-8** - The RI/FS Work Plan for Sites 1-4, 6 and 8 and SSI Work Plan for Sites 5 and 7 was completed in September 1993 and field work started.

**UST 1** - An initial investigation was completed.

## PROGRESS DURING FISCAL YEAR 1995

### FY95

**ALL SITES** - An Environmental Baseline Survey (EBS) Phase I contract was awarded.

**UST 1** - Soil removal identified additional contamination.

**Sites 1-8** - RI Work Plan submitted to EPA and approved. A wetland delineation and survey were conducted as part of the RI field program.

## PLANS FOR FISCAL YEARS 1996-1997

### FY96

**ALL SITES** - Phase I of the EBS will be completed. A BRAC Cleanup Team will be formed and develop a BRAC Cleanup Plan (BCP).

**UST 1** - Complete CAP in FY96. Complete 2 RI/FSs.

### FY97

**ALL SITES** - Phase II of the EBS will begin.

**Sites 1-8** - The draft RI/FS report is expected to be completed in October 1996.

**UST 1** - Complete design FY97. Complete seven RI/FSs and two RDs.

## SOUTH WEYMOUTH NAS PROGRESS AND PLANS

CERCLA	FY94 and before	FY95	FY96	FY97	FY98	FY99	FY00	FY01 and after
PA	8	1						
SI	8							
RI/FS			2	7				
RD				2		7		
RA						2		7
IRA	1(2)		1(2)					
RC								9
Cumulative Response Complete								100%
UST	FY94 and before	FY95	FY96	FY97	FY98	FY99	FY00	FY01 and after
ISC	1							
INV								
CAP			1					
DES				1				
IMP					1			
IRA	1(1)							
RC					1			
Cumulative Response Complete					100%			